THE MARINE RECORD.

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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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JAPAN WANTS A MODERN NAVY.

Official advices have been received by the government at Washington that Japan is about to greatly increase her navy, and that proposals for bids for war vessels will shortly be thrown open to all the great shipbuilding countries of the world, including the United States. The letter containing this information states that for the first time a great opportunity will be afforded to the shipbuilders of the country to compete with foreign nations in the construction of men-of-war. The visit of vessels of our new navy to the Orient has given an object lesson to both China and Japan of what American shipyards are able to accomplish in the construction of men-of-war. Until very recently our naval vessels in Pacific waters have been of an obsolete type, and the impression prevailed that the United States navy was decidedly behind those of other countries in the character of the vessels composing it. Both Japan and China, it is now said, are anxious that American shipbuilders should be afforded an opportunity to bid upon new work contemplated for the navies of those countries. Japan is about to issue advertisments for bids, and will be the first to let contracts for new construction.

TO SECURE AMERICAN REGISTRY.

"Section 4136, R. S.—The Secretary of the Treasury may issue a register or enrollment for any vessel built in a foreign country whenever such vessel shall be wrecked in the United States, if it shall be purchased and repaired by a citizen of the United States, if it shall be proved to the satisfaction of the Secretary that the repairs put upon such vessel are equal to three-fourths of the cost of the vessel when so repaired."

ABSTRACT OF BIDS.

Abstract of bids received for constructing two cribs for foundations for keeper's dwelling and beacons of the Sandusky Bay Range Light Station, Ohio, and opened the 13th day of June, 1895, at the office of the U. S. Light-House Engineer, Tenth District.

The L. P. & J. A. Smith Co., Cleveland, O.	$16,987
John Stang, Lorain, O.	18,300
Thomas & Mayes, Chicago, Ill	20,931
James B. Connolly, Buffalo, N. Y	20,336

NOTICE TO MARINERS.

Notice is hereby given that the third-class can buoy marking the shoal making out from Saunders Point, Gladstone, Mich., (Little Bay de Noquet) is reported as out of position.

By order of the Light-House Board:

J. H. DAYTON, Commander U. S. N.,
Inspector 9th L. H. District.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

GRAND HAVEN PIERHEAD LIGHT-STATION.—Notice is hereby given that, on or about June 22, 1895, the fog signal at this station will be moved and re-established, without change of characteristic, in the fog signal building recently removed and re-erected on the S. pier at a point about 95 feet from its outer end, and immediately in rear of the pierhead light tower, entrance to the harbor of Grand Haven.

By order of the Light-House Board:

JOHN G. WALKER,
Rear Admiral, U. S. Navy, Chairman.

OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., June 13, 1895.

ALTERATION IN OWEN SOUND RANGE LIGHTS.—On the opening of navigation this spring the range lights heretofore maintained on the west side of the entrance to Owen Sound Harbor, Georgian Bay, Ont., were abandoned and a new range established on the east side to the entrance.

The back tower of the old range has been removed and now serves as the front tower of the new range. The front tower of the old range, on a crib outside the entrance is still standing, but is not lighted; it marks the point where vessels should leave the alignment of the new range and head for the entrance midway between the breakwater piers. It is proposed to remove this pier and building in connection with dredging now being prosecuted. The new front range light tower stands on a pile fouudation at the outermost angle of the sheet piling on the east side of the mouth of Sydenham River, its middle 18 feet from the face of the pile work. Lat. 44° 34′ 43″ N. Long. 80° 56′ 19″ W. The tower is a wooden building, square in plan, surmounted by a square iron lantern. It is 35 feet in height, from its base to the vane on the lantern, and is painted white with a vertical red stripe on the north side or side facing the channel.

The light is a fixed red light elevated 39 feet above the level of the water. It should be visible seven miles in, and over a small arc on each side of the line of the line of range. The illuminating apparatus is catopric. The back range light tower is located on a pile foundation 915 feet S. by W. ¾ W. (S. 15° true) from the front tower, and 225 feet northeastwardly from the N. E. corner of the Canadian Pacific Railway elevator. It is a wooden building, square in plan, surmounted by a square wooden lantern, and is 46 feet in height from its base to the vane on the lantern; it is painted white with a vertical red stripe on the north side, facing the line of range. The light is a fixed white light elevated 46 feet above the level of the water, and should be visible eight miles in, and over a small arc on each side of the line of range. The illuminating apparatus is catopric.

Note.—From and after 1st July next this light will be changed in color from white to red without further notice.

The old range of lights led over the shoal off Squaw Point, and consequently could not be used until close in to the mouth of the river. The present alignment is 10° farther to the westward than the old one and leads towards the west shore of the sound clear of all obstructions. It can therefore be picked up by vessels as soon as they enter the sound and the lights kept in line S. by W. ¾ W. (S. 50° true) until vessels are within 900 feet of the front tower, or opposite the site of the old front light, when they shoud bear for the middle of the channel, leaving the lights on the port hand in passing.

WM. SMITH,
Deputy Minister Marine and Fisheries, Ottawa, Can.

LIGHT-HOUSE ESTABLISHMENT.
OFFICE OF THE INSPECTOR, NINTH DISTRICT,
CHICAGO, ILL., June 15, 1895.

Notice is hereby given that the wreck of the schooner "Kate Kelly," off Wind Point (Racine Point) Light Station, Wis., until further notice will be marked every night by a white light attached to a spar projecting from the wreck.

By order of the Light-House Board.

Notice is hereby given that the Hyde Park Shoal (outside) can buoy, the Morgan's Reef (outside) spar buoy, and the South Park Shoal can buoy—all off South Chicago, Ill., reported (8th June, 1895) as out of position, and adrift, are in their proper positions.

By order of the Light-House Board:

COMMANDER J. H. DAYTON,
U. S. N. Inspector 9th Light-House District.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

E. L. Nims, formerly purser on the Goodrich Trans. Co.'s steamer Atlanta, is now on the company's steamer City of Racine.

W. H. Beebe, formerly of the Grummond Line, Detroit, is now clerk of the Goodrich Trans. Co.'s favorite steamship Virginia.

The contracts taken Tuesday by F. W. Wheeler & Co., the Bay City shipbuilders, for two steel steamers of the largest size, are believed to be the forerunners of contracts for at least a dozen steel boats for construction during the coming fall and winter. There are many projects on foot for new steamers. One of the syndicates is headed by Arthur Orr, the Chicago board of trade man, who is now abroad. It is likely that none of the new boats will be less than 5,000 tons capacity on a draft of 20 feet. Estimates on new boats show a slight advance over similar estimates a year ago, owing to the rise in the price of iron and the prospective advance in labor.

The owners of the steamer Puritan are well pleased with the results of the work done to her machinery by the Manistee Iron Works last winter, who bushed her high pressure cylinder two inches.

The steamer Alva went out of the Chicago Ship Building Company's dry dock Friday night. She received some new steel plates on her bottom. The steamer Puritan was in dock for repairs to her stem and new iron plates on same.

At Miller Brothers' shipyard the steamer Soo City was in dock for some calking and a new wheel; the steam yacht Catherine C, for a general overhauling and scraping and painting bottom; the steamer Oceanica, for repairs to her rudder and refastening wheel; the schooner Ralph Campbell, to have leaks stopped; the schooner Sunrise, for survey and repairs where necessary.

The Anchor Line steel steamer Mahoning, Capt. Henry Durker, arrived here Sunday afternoon, with 2,300 tons of coal from Erie, consigned to Scott & Co. This is the Mahoning's first trip to this port in two seasons. She has been trading to Lake Superior.

Knapp & Dixon, of Racine, have purchased the tug Wau Bun from the trustees of the late Jacob Jonson's and William Dean's estates. Consideration $4,750.

Carr & Blair chartered the schooner James G. Blaine for oats to Port Huron at 1 cent per bushel; the steamer Progress, for iron ore from Ashland to Lake Erie at 85 cents per ton.

Wiley M. Egan chartered the steamer Kate Buttroni for corn to Kingston at 2¼ cents per bushel.

The new steel steamship to be named the Victory, now being built by the Chicago Shipbuilding Company at South Chicago, will be launched at an early date. When afloat, she will be the largest steamer on the lakes; her dimensions are 400 feet over all, 380 feet keel, 48 feet beam, 28 feet molded depth. Her sister steamship of the same dimensions and to be named the Zenith City will be ready for launching about the end of July. The company are also building a steel barge to be named the Aurania for Capt. John Corrigan of Cleveland, of the following dimensions 366 feet over all 352 feet keel 44 feet beam 26 feet molded depth.

The steamer J. W. Westcott is receiving considerable repairs to her boiler.

The steam I. W. Stephenson Capt. John Nicholson, had on a deck load of lumber 23 feet above her deck and towering above her pilot house forward and her cabin aft on her arrival last week.

Captain David M. Cochrane's side wheel excursion steamer John A. Dix arrived in port from South Chicago, on Saturday, and took her place at her dock at Clark Street bridge. She has had considerable work done on her hull and boilers, and has been put in excellent condition for the summer seasons' work. Captain Geo. W. Pardee is in command of her.

The Goodrich Transportation Co.'s steamer Menominee arrived here on Monday from Manitowoc, where she had spent two weeks in dry dock at Burger & Burger's shipyard, and received a thorough overhauling and received all necessary repairs and repainting. She has also had her cabins and state rooms refitted and refurnished, and is in excellent condition for her season's work. Captain W. H. Flint, formerly first officer of the steamer Indiana has been given command of the Menominee.

After serving the Goodrich Transportation company for nearly a quarter of a century John Singleton yesterday resigned as general agent of the line on account of ill-health. He will be succeeded by H. A. Bonn. Mr. Singleton went with the Goodrich line April 2, 1871, and was the best known passenger agent on the lakes. He has seen the line grow up from a few side-wheel steamers into a fleet of modern propellers. Mr. Singleton's health was broken down by the long illness of his wife, who died two months ago. He will take a rest of several months before embarking in business for himself.

The steamer City of Louisville is again on the Chicago-Benton Harbor route, after being remodeled and refitted from stem to stern. She now resembles the Chicora, but is only two-thirds as large. Capt. A. J. Seamons is in command, with Louis Ossignac as first mate, Let Balow as second, W. J. Hancock clerk, M. Sawyer steward, M. Brown first and M. Johnson second engineer.

The steamer Puritan is in dry dock, repairing damages caused by collision with the schooner City of Toledo, during a fog.

The steamers City of Holland and Soo City form a lively passenger line between Chicago and Holland, Mich.

Chicago shipments last week were 11,647 barrels of flour, 201,985 bushels of wheat, 1,002,200 of corn and 472,697 of oats.

The Thomas Cranage reached Chicago at 2 o'clock a. m., June 6, with 2,027 tons of ore, which she discharged, getting out the same night with 140,000 bushels of oats. Capt J. S. McNeil commands the Cranage.

A pile driver is extending the docks at North Manitou Island for the better accommodation of Chicago steamers.

The new steamer Victory, belonging to the Inter-Lake Steamship Co., will be launched from the South Chicago yard June 29, and the Zenith City, belonging to the Zenith Transportation Co., August 1. These two boats will be the largest on the lakes, being of the same dimensions, 405 feet over all and 45 feet beam.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The State of New York broke her starboard wheel eccentric last Friday. Repairs were made here.

The Chemung completed repairs last Thursday afternoon.

The Omaha has been receiving minor repairs here.

Capt. J. D. Green has again taken charge of the Russia.

The excursion steamer Corona was struck by the Northern King Wednesday afternoon, breaking a few stanchions, and damaging her cabin.

Hand & Johnson's new tug Cascade is in commission.

Supervising-inspector M. J. Galvin has recommended to local excusion steamers a more rigid observance of the equipment rules, and the regulation requiring that passengers be kept away from the pilot house.

The heavy grain shortages at the Coatesworth Elevator, which have been the subject of considerable complaint this spring, have been traced to a weighman, who has paid the value of all shortages this season, in order to avoid prosecution.

The Union Dry Dock Co. will build two tugs about the size of the Fabian for O. W. Cheney and others.

Ralph Tompkins, wheelsman on the E. P. Wilbur, fell into the hold Saturday morning, and was instantly killed. He was 38 years old and unmarried. His home was in Rives City, Michigan.

The excursion steamers Shrewsbury, Harrison and Pearl are to be sold Tuesday forenoon in the Erie Basin. The Pearl will doubtless be bought in by the Crystal Beach Co. without much competition, but the bidding on the Shrewsbury and Harrison ought to be pretty lively.

Carter Bros. of Port Colborne, have got the burned steamer Fairbank afloat and find that she does not leak, though considerably burned at the ends. Her engine was not injured, and has been turned over. Her boilers did not leak. They will offer her for sale rather than to try to fit her up themselves. She will make a good lumber carrier.

Buffalo shipments last week were: Coal, 51,398 tons; cement, 19,940 barrels; salt, 32,520, and sugar, 26,263.

The rival tug lines have formed a combination which does not include the Elk. Rates will probably be high though the complaint against the old practices was not that the charges were exorbitant, but that two rates had to be paid. At the Buffalo breakwater or a certain point in Tonawanda the tow was given up to a local tug and a second bill had to be paid.

The schooner A. L. Andrews has brought into Buffalo the last of the cargo of the steamer Seattle which went ashore at Rondeau last November.

The steamers Shrewsbury and Harrison were sold Tuesday by order of the Buffalo Loan, Trust & Safe Deposit Co. The franchises of the Buffalo & Niagara River Navigation Co. and the lease and dock rights at Schlosser were also sold. When put up separately all that was bid for the Harrison was $1,200, while for the Shrewsbury, which originally cost over $70,000, but $7,550 was offered. Finally the whole business, boats, leases, franchise and all were bid in by Alex J. Porter, of Niagara Falls, for $15,000.

DETROIT, MICH.

Special Correspondence to The Marine Record.

The Flora and Atlantic are still in ordinary, awaiting better times.

The Greyhound has been receiving some minor repairs.

The Canadian Deputy Minister of Marine and Fisheries will receive proposals until June 15, for the removal of the wreck of the barge Ark from the channel near Amherstburg.

The City of Mackinac will leave on her first Mackinaw trip June 23, and thereafter until September the Lake Huron boats of the D. & C. Line will make four trips weekly.

The new coal pockets and chutes at the F. & J. Hurley's dock are practically finished, and the firm can fuel steamers very rapidly now.

The Schoolcraft has been getting her spring overhauling at the Detroit dry dock.

Capt. Pridgeon has resigned the command of the schooner Iron City, and Capt. John Hurley will sail her.

The Russell Wheel & Foundry Co., of Detroit, has been awarded a contract by the Light-House Board for an iron tower for the pierhead light station at Calumet, Illinois.

Two water tube boilers of the Roberts' pattern are being made for McElroy's steamer Unique. They are to be in place by Oct. 1.

Farwell & Smith's new steamer building at Miami City by Anderson, will be launched before the end of the month.

J. W. Finney will probably carry the Ruelle seizure up for action by the state department, and will demand indemity on the claim that the scows were illegally interfered with.

According to Capt. C. M. Davis, one of the appraisers of the Canadian steamer Jack, she is rather a patchwork affair. She measures 38 feet beam with a length of only 142½ feet. Oak, elm, tamarack and pine enter into the hull construction. Her ends are as full as the bending of the plank would permit. She is steered with a small, queerly-shaped rudder, She has a sectional wheel with a square hub. She carries the engine and shafting of the old Merchant liner Scotia, and a water tube boiler. The Jack has applied for a limitation of liability to her appraised valuation of $8,400, and all creditors have been warned to present their accounts before October 1.

The schooner Canton is being repaired at the upper dry dock.

The keel of the new Cleveland & Buffalo Transit Co.'s steamer will be laid early in the coming week. She will be ready for service at the opening of the coming season. Bulb angles are used in the construction of the frames, to increase the stiffness of the hull.

It is learned from Charlevoix that Capt. O. E. Wilbur has abandoned his search for the Cayuga, finding nothing, after several weeks' search but some old anchors.

BAY CITY, MICH.

Special Correspondence to The Marine Record.

The steamship Rappahannock was launched at Davidson's yard at 3:15 o'clock last Thursday afternoon. The launch was witnessed by the delegates of the Arbeiter-Zeiting convention, who marched to the yard headed by a brass band. The Rappahannock had her engines, boilers and stacks in place, and will be ready for sea in a very short time. Owing to the low water, she struck soft mud forward before she reached her proper draft, but this was so soft that she sank into it as if it were her natural element. The Rappahannock is 330 feet long, by 43 feet beam, and 26 feet moulded depth. She has double steel keelsons, steel arches outside and inside, and diagonal strapped. The engine was built by the Frontier Iron Works, of Detroit and is triple expansion, 20, 32 and 54 inches by 62 inches stroke. It is equipped with the Joy valve gear and all late improvements. Wickes Bros., of Saginaw built the two boilers, each being 12 feet 3 inches in diameter by 12 feet long and tested to 160 pounds steam pressure, and equipped with the Howden hot draft system. She has a Globe steam steerer, Providence windlass and capstan, and Trautman anchors. She has also one of the new Providence steam towing machines. Her deck houses are handsomely finished in hard woods and lincrusta Walton. She is expected to carry 3,000 gross tons on 16 feet draft. Her sister ship, the Sacramento will be launched about July 10th.

Wheeler's shipyard presents a lively scene just now. Four large steamers are on the stocks and all well advanced toward completion. The two immense steel steamers which he is building will be fitted up with Westinghouse engines and electric generators.

The tug George E. Brockway is receiving repairs to her engine, which broke down while she was coming across with a raft for the Michigan Log Towing Co.

Capt. James Davidson was on the pilot house of the Robert Holland the other day, and took charge of the steamer for awhile. The result was a collision between the Lizzie A. Law, which the Holland had in tow, and the steambarge Salina. The owner of the Salina made a demand for damages on Capt. Davidson Monday, but the latter claims the Salina was at fault and should repair the Law. The case may go to the courts.

Wheeler & Co., shipbuilders, have closed a contract with David Whitney, of Detroit, for a steel freight steamer to be 358 feet over all, 46½ feet beam, and 26½ depth of hold. The Wheeler Co. has also ordered material for a steamer which will be similar to the Whitney boat, and which will be built on stock account. With these two boats the shipyard will have several vessels in the course of construction, the entire work aggregating over $1,000,000 in value.

CLEVELAND, O.

Special Correspondence to The Marine Record.

The City of the Straits is opening her Put-in-Bay season with good business.

A Canadian starch firm bought the 14,000 bushels of corn in the wrecked steamer St. Magnus.

C. R. Jones & Co. have purchased the steamer Argonaut from the Escanaba & Lake Michigan Transit Co.

The yachts Say When, Priscilla and Neva have each

been in dry dock this week, the two latter for bottom cleaning and the Say When for repairs.

On account of running into a floating spar while steaming at a good rate of speed in the outer harbor on Tuesday afternoon, the handsome yacht "Say When," owned by the Hon. W. J. White, received such hull damage that she had to be beached to prevent her from foundering. She was pumped out and taken to dry dock, where no expense will be spared to put her in her former excellent condition, and it is now thought that her owner will be able to take out a party of guests on Saturday.

The Globe Iron Works Co. will lay the keel of a large steel steamer for the Menominee Transit Co., to take the place of the steamer Norman which foundered through collision on Lake Huron a few weeks ago. The general dimensions of the new boat will be 420 feet overall, 400 feet keel, 48 feet beam and 28 feet deep. She will have four ten-foot boilers. Work on the new boat will be started as soon as the material, which was purchased some time ago, arrives at the shipyard, and construction will be pushed as rapidly as possible, as the owners want to have her completed and ready for business Nov. 1.

A meeting of the most prominent vessel owners was held in the office of Capt. James Corrigan on Wednesday, when the following resolution was adopted:

"It is the sense of the vessel owners of Cleveland that any improvement of the main river from the old riverbed to the Viaduct is unnecessary at present. The old riverbed and the main river above the Viaduct require the first attention. The Valley Railroad pier, the old riverbed, the Willow street bridge, and the sharp bends are, and have been, serious obstructions that have deprived Cleveland of its proper share of the commerce of the Ohio ports. The improvement of the main river above the Viaduct is necessary for the development of commerce in that direction, and an inducement for manufacturers to locate where vessels can supply their wants. The whole river should be dredged and sufficient water for the deepness of vessels maintained."

The water in the outer harbor east of the east pier, is very shallow. Soundings made by the Cuddy-Mullen Coal Co., who are building a large coal dock in that vicinity, show that loaded boats cannot reach their new dock from the approach to the harbor and must come in from the eastward. Dredging at that point is badly needed. Mr. Cuddy has taken the matter up with the harbor improvement committee of the Chamber of Commerce, and Mr. H. D. Goulder of that committee will bring the matter up at a meeting of the directors of that body. Work on the new dock is being pushed rapidly and when it is completed it will be one of the finest cargo and fuel docks on the lakes. But if it cannot be conveniently reached by loaded vessels, considerable dredging will have to be done, or the firm and the port will lose much business.

It has been reported that the late Samuel Gibson, of Buffalo, and Robert Craig, of Philadelphia, were the builders of the Fountain City and Idaho, the latter 32 and the former nearly 40 years old. As a matter of record they were built at this port by Capt. E. M. Peck, and both were among the strongest wooden steamers that ever sailed the lakes.

It is understood that the Light-House Board has decided to place a sounding board on the steam fog whistle at this port, so that the sound will be thrown out toward the lake and not be so plainly heard in the city. The intervals between whistles will be lengthened, as was recently ordered at Buffalo.

The figures prepared by Secretary Keep of the Lake Carriers' Association, showing the estimated decrease in the carrying capacity of the lake fleet, by the lowering of the lake levels, has set both owners and shippers to thinking. Mr. Keep's figures show that a lowering of nine inches would effect the season capacity to the extent of 3,427,110 tons and decrease earnings to the extent of $1,713,555. Shipments of ore from Lake Superior ports during the month of May were 1,051,967 tons, or 107,000 tons larger than the shipments for both April and May, 1894. The movement has been very heavy, but the amount brought down is far short of what it would have been had the stage of water at the foot of Lake Superior been as good as it was last year.

The first of the new lake charts issued by the hydrographic office at Washington, those of Lake Huron and Georgian Bay, may now be procured from the agents of the departments. The other three charts of the series, Lake Superior, Lake Michigan, and Lakes Erie and Ontario, will be issued in a few days.

The people of Lorain are loud in their praise of Colonel Jared Smith, U. S. Engineer, for his attitude in regard to the harbor improvements at that place. The fund set apart, for dredging out the channel became exhausted before the bar at the harbor entrance was removed. There was the greatest necessity for continuing the work, and this Colonel Smith appreciated. He telegraphed to Washington for authority and gave an order to contractor John Stang to continue the work seventy hours longer. This will give a channel 18 feet deep and 75 feet wide at the entrance and fully 17 feet deep inside to the government line.

Rapid work is being done on the steel steamer Yale building at the yards of the Cleveland Ship Building Co. for local owners, and it is now certain that she will be ready for work on contract time. It is reported that the builders refused to construct a sister ship to the Chili for the same amount paid for her. The Chili was built for M. M. Drake and others of Buffalo, and was the last vessel launched from the yards of the Cleveland Ship Building Co., since which time she has been pronounced as one of the most efficient and economical carriers on the lakes.

Material is now coming in lively at the yards of the Globe Iron Works Co., and the fleet of canal boats will be pushed to completion at an early date. The steamer is now plated and two of the barges are well along. The large steel schooner building to the order of Fairport owners is also all plated and will soon be ready for launching. She has a straight stem and rounn stern the run being extra fine.

The steamers State of New York and State of Ohio of the C & B line are making very good time this season. The steamers are due at both ends of the route at 7:30 in the morning and they have arrived ahead of time quite often. The boats are carrying full cargoes of freight each way and passenger business is quite heavy.

Masters are already complaining at the preference given the two large passenger steamers in locking through the St. Mary's Falls Canal. There has been an enormous trade at the canal lately and each vessel is jealous of waiting for their turn to lock through an hour longer than is absolutely necessary according to the order of their arrival.

The handsome steel steam yacht Wadena built in 1891 at the yards of the Cleveland Ship Building Co., arrived at New York this week after a year's cruise in eastern waters. It is reported that the Mikado of Japan was so well pleased with the yacht that he desired to purchase her for a naval despatch boat. It is safe to say that Mr. J. H. Wade, owner of the yacht, who had his family with him on the cruise is not looking for a buyer of his spendid craft even at big figures.

The work of taking the cargo out of the capsized steamer St. Magnus is going along slowly but it is now expected that the vessel will be righted this week. Her exposed position lying as she does near the mouth of the river causes more or less detention of work through steamers continually passing.

DULUTH AND SUPERIOR.

Special Correspondence to The Marine Record.

C. J. A. Morris, who built the first section of the Northwestern coal dock on Allouez Bay, has been awarded the contract for the second section, which he will begin at once. Part of the new work will be ready to receive coal before the close of navigation.

The steamer William Edwards damaged her rudder at the Mesaba ore dock, Wednesday last and was detained several hours for repairs.

The steambarge Belle Cross, which sank in the harbor last week, has been raised.

One charter has been made for a boat to take wheat to Cleveland at 2⅜c. It is for milling purposes.

The North Land left Duluth sooner than was expected Friday evening, and as a result left behind some members of her crew, who went by train and overtook her at the Sault.

Duluth is enjoying another war between the Singer and Inman lines. They have begun to cut rates, and there are as yet no signs of a truce.

Ashland shipped 125,349 tons of ore last week, bringing the season's shipments up to 609,393 tons.

Duluth shipments of wheat last week were 264,234 bushels, and of flour 153,923 barrels.

Secretary Wetmore, of the American Steel Barge Co., says that after the two oil barges being built for the Standard Oil Co. are finished, no more boats will be built by the barge company this season. They are figuring on one or two boats, he says, but the price of iron proves a setback and competition is lively.

MILWAUKEE, WIS.

Special Correspondence to The Marine Record.

Diver John Harms went down to the sunken schooner Kate Kelley, off Racine North Point. He found the hull headed in a northeasterly direction. The jibboom and bowsprit were intact, but the foremast is gone and the after rigging is in a confused mass. The wreck lies in the path of vessels and the United States government will undoubtedly take steps to remove the wreckage.

The garbage steamer Rand is getting a new deck and boiler at Manitowoc.

The steamer Raleigh, which was damaged by fire last week, received a new cabin at the Milwaukee Dry-Dock Co.'s west yard and got away Saturday. The steamer Denver is getting her topsides calked at the west yard.

The lake barge Imperial will be taken to Horseshoe Reef with a wrecking outfit, and will try to recover the engine and boiler of the sunken steam barge J. H. Johnson.

SAULT ST. MARIE.

Special Correspondence to The Marine Record.

The depth of water through the new Canadian Canal is said to be only 14 feet, a number of boulders not having been taken out yet. By July 15 the depth of the canal will be known. The opening of the canal last Thursday was rather informal, many distinguished people who were expected having failed to come.

Capt. A. Ranville, of Mackinaw City, will have charge of the steamer F. S. Faxton in the excursion business between Cheboygan and Sault Ste Marie this season.

F. C. Shaw, of Crystal Lake, Mich, has been awarded the contract for furnishing lumber for repairing the cribs and structure of the Lake George lights.

Extensive preparations are being made to give the parliamentary party a suitable reception on the occasion of the opening of the canal on Thursday.

During May the canal did the heaviest month's business in its history. The total number of passages for the month was 2,441, an average of 77 per day. The registered tonnage was 2,344,246 The previous record for the number of boats passing in a single day has been broken several times, as well as the record for tonnage. The banner days were the 16th, 99 boats; 21st, 101; 24th, 107: 25th, 102; 28th, 100.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

The City of Rome, laden with 2,400 tons of hard coal, ran hard aground on the head of the middle ground abreast here. She was about 400 feet above the buoy. In sounding they found one spot with only 13 feet over it. The tugs Boynton and Conger tried to pull her off but gave it up until the schooner Killderhouse lightened her of coal.

There were five vessels at the fiber works with pulp wood and one with coal this week.

There is not very much lumber coming to this port or to Sarnia so far this year. A few cargoes cut from Canadian logs have been sent to Sarnia from Bay City.

It is expected that the burned steam-barge H. E. Runnels will come here for a rebuild at the Jenks shipyard. She has been pumped out and towed to Detroit where a survey will be held.

The work on Inman's new tug is being pushed as fast as possible. The builders expect to have her out in about two weeks.

Capt. Geo. R. Bonnah has resigned the command of the schooner Koal-Kabin.

The John O'Neil got away with the Hiram Sibley to load ore at Ashland at 85 cents per ton.

The steam barge Wyoming (small) had a new spar shipped at Dunford & Alverson's dry-dock on her way up and took on 50 tons of raft chain for Loud & Son.

What a fine thing for the river if Crockett & McElroy would buy the City of Toledo and place her on the river between Port Huron and Detroit!

John Scagel and Paul J. Jones, of Sarnia, have begun work on a new yacht which they expect to launch in September. She will be equipped with both sail and steam power, carrying two spars. She will be 71 feet over all and 68 feet on deck by 11½ feet beam. She will be 6 feet 6 inches from garboard to sheerplank and she will draw 5 feet aft and 3½ feet forward. Her engines will be fore and aft compound, 7 and 14 by 10 inches, supplied with steam by a Scotch boiler to carry 130 pounds pressure. The Polson Iron Works, Toronto, will build the machinery.

ASHTABULA, HARBOR, O.

Special Correspondence to The Marine Record.

A rising ore bucket swung round and struck Otto Paanan while the Centurion was being unloaded last Wednesday. The machinery had started suddenly and the bucket had started with a jerk, crushing Matt Koufena's thumb.

Capt. Stratton, of the Norman, loaned her fine, large ensign to Mayor W. S. McKinnon for memorial day uses at the monument, just before she started on her last trip. Thus it was saved from the watery grave which the steamer and all her other belongings found.

The little steamer Joe Milton has gone on the route between the Harbor and Port Stanley.

The Aurora boasts of the possession of a chinese cook, as yet a rather unique feature on the lakes. The stewards of several other large steamers in port made a demonstration on the Aurora last Wednesday to intimidate the "chinee," but the master of the Aurora drove them away with a revolver.

Owing to some mistake in building or designing, Jacob Strader's steam launch Alice B. listed badly when launched last Friday, and lay well down on her side. She took in some water, which was pumped out. About half a ton of ballast was put in without effect. Now some radical changes are to be made in her hull construction to change her center of bouyancy before she is fitted out.

The new P. Y. & A. coal chutes were tested last Friday. Some minor defects were found which will be easily remedied, and by the time the coal gets to coming forward well the chutes will be in readiness for work. Three cars of coal were dumped into the steamer Samoa at Friday's test. The contents of the cars are dumped into the pockets of the chutes by the new plan. The spouts fill five-ton buckets, operated by McMyler "whirlers," which place the coal in the boats with great rapidity.

The sand bar at the mouth of the harbor has been giving a good deal of trouble to laden craft. Capt. W. Stickney, who has the contract for its removal, expected to leave Detroit with his dredging outfit last Saturday, and will soon be at work on the bar.

After a large amount of patching by a diver on the after end of the burned steambarge Runnells, the wreckers succeeded in raising her Friday evening by pumping her out. The entire after end seems a complete wreck, but forward of amidships she seems all right yet. Part of her coal cargo was taken out with an over "scoop." She will probably go with the remainder of her cargo to Port Huron, where the Jenks Ship Building Co., herowners, will put her in shape once more.

CORRESPONDENCE.

☞We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

LAKE MICHIGAN LEVELS.

FERRYSBURG, MICH., June 18, 1895.

To the Editor of The Marine Record:

A correspondent in the *Seaboard* of the 13th inst., remarks the effect of "local attraction" on the calculations of the Chicago people in their estimate of the probable subsidence of Lake Michigan as a result of the Chicago drainage canal. They estimate it at three-tenths of a foot, or something more than 3½ inches, while Major Ruffner, Corps of Engineers, U. S. A., calls it seven-tenths of a foot, or nearly 8½ inches. Evidently the calculations of the Chicago engineers are affected by some local disturbing element, for it is quite possible, nay probable, that this subsidence will be found nearer 12 to 13 inches than 3 or 4 inches, as the Chicago people predict, when the question comes to be fully considered by the board of able engineers who are appointed by the Secretary of War for that purpose.

With those who have some knowledge of the rivers that flow into Lake Michigan, it is beyond question that the united flow of the two largest, for a year, would not equal in volume the flow of the canal when discharging at the rate of 600,000 cubic feet per minute. With such a condition we need not be surprised to find the outflow to be as much as forty per cent. of the total inflow, instead of one-third as suggested in a former article on this subject.

In view of the strong, steady current that sets out of the Straits of Mackinaw, between the head of Bois Blanc Island and Mackinaw Island, month in and month out, year in and year out, we see that no contribution from Lake Huron, not one pound, can be made to the permanent volume of Lake Michigan; hence, this question must be determined entirely from the ratio between the outflow of the canal, to the total volume of the inflow of all the rivers, creeks, etc., to Lake Michigan, and the difference of level between Lakes Huron and Michigan; i. e. the head that makes this perpetual current, or outflow through the Straits.

Though this ratio of the volume of outflow to that of inflow is, and must ever be largely a matter of judgment, it will yet afford an excellent approximation to fact, if we know correctly the difference of mean level between the two lakes—Michigan and Huron.

If the ratio above referred to is 40 per cent., then the subsidence will be 25 per cent. of this difference of level, whatever that may be. And if this is 5½ feet, as we are told by Prof. Gray, we may look for a subsidence of about 14 inches.

This subsidence will be smaller if the ratio of the volume of outflow to that of inflow is smaller, or if the difference of level is smaller. So that, until we have a well matured judgment as to the relation of the volume of outflow of the canal, as compared with the volume of inflow of all the rivers and creeks to Lake Michigan, and a correct measurement of the difference of level between the two lakes, the problem will be quite indeterminate for purposes of precision, though a rude approximation gives strong intimations of danger.

H. C. PEARSONS.

DEPTH OF WATER.

PORT HURON, June 18, 1895.

To the Editor of The Marine Record:

In last week's MARINE RECORD you publish the depth of water at Lake ports and if I understand right there is a draft of 16 feet credited abreast of Black River, (St. Clair River) now there must be some mistake as at this writing the steamer City of Rome is aground and she is fully 300 feet above the stake at the head of the Middle Ground, besides this, she is only drawing 15 feet 4 inches aft and 15 feet forward so that it looks as if there was some error in quoting more water than can now be measured.

However, there may be a reason for their being shoal water on the upper end of the middle ground now as a dredge has been at work on the Canadian side at Point Edwards this spring and they are dumping their scow in the current and this will to a great extent account for the middle ground shoaling as the sand drifts down and settles there.

I would further report that this is the second time the dredge has been working in the rapids and depositing the dredging in the current so that there is no wonder that the middle ground keeps shoal.

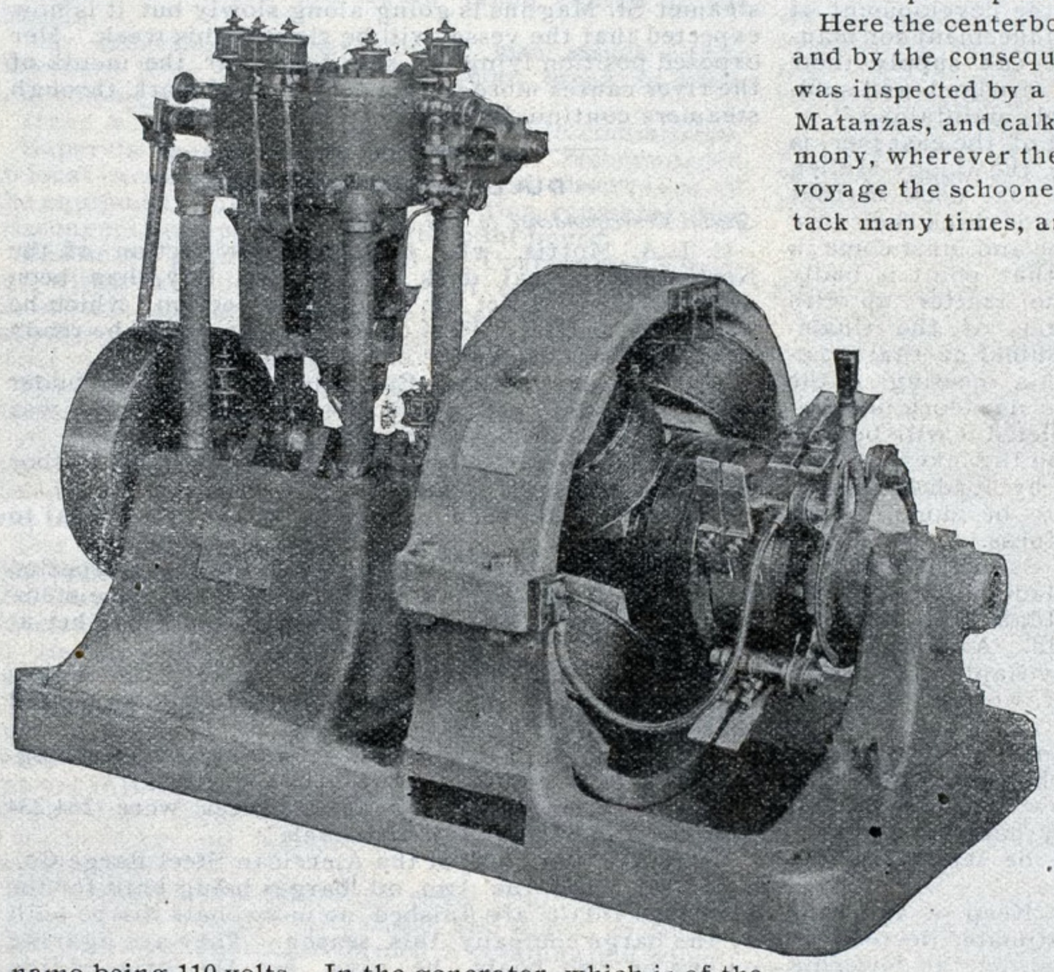
There ought to be some steps taken to stop this work of dredging in one place and depositing the bottom thus dredged at a still worse point. UNO.

ELECTRIC LIGHTING ON SHIPBOARD.

(ILLUSTRATED.)

The peculiar requirements which govern the installation of electric lighting and power plants on shipboard are such that only familiarity with the conditions to be fulfilled and long practice can give the requisite result. And it is to firms or corporations that have made a specialty of marine work that owners must look for improvements in that special branch. For the past year efforts have been made to secure greater compactness in the generator plant, consisting of a steam engine directly connected to the generator, and the latest type which is now being built by the General Electric Company, is an instance of success in this direction.

The combination shown in the illustration consists of a double cylinder vertical engine, 4¼ x 4, directly coupled to a General Electric multipolar generator. It is known as an eight kilowatt set, the voltage of the dynamo being 110 volts. In the generator, which is of the latest type, all the material of the frame is available for magnetic purposes, so that the magnetic leakage is reduced to a minimum—a point of vital importance on board ship. The frame is of cast soft steel of very high magnetic permeability, and the armature is iron-clad, i. e. the windings are sunk in slots in the outer surface of the armature core, are interchangeable and can be easily replaced. Provision is made to ventilate the armature thoroughly, and the insulation throughout is practically indestructible. The commutator and brushes work perfectly under all conditions of load, and the regulation has been brought to a high degree of excellence.



This generating set occupies a minimum of floor space, and this consideration alone will serve to recommend it to ship-builders and owners. It is the smoothest running, and, for its capacity, the smallest lighting generating set we have yet seen.

MARITIME LAW.

BAHR, BEAREND & ROSS vs. MARITIME INS. CO.

Queen's Bench Division, February, 1895.

SHIPPING—BOTTOMRY BOND—INSURANCE.—This was an action to recover £750 upon a policy of marine insurance upon a bottomry bond on a sailing ship. While at Mobile it became necessary to provide money for the ship and a bottomry bond was given by the captain. Soon after the vessel sailed from Mobile, the captain ran her ashore and abandoned her. The vessel was afterwards surveyed, and after sale little or nothing was left when expenses had been paid. The underwriters defended the action on the ground that the bottomry bond was invalid, and that there had been no loss within the meaning of the policy. In giving judgment his lordship (Kennedy, J.) said that he thought the bond was valid, but even assuming this, he was of opinion that plaintiffs could not recover, for there had been no loss on the subject matter of the insurance policy. The ship was in existence as a ship at the present time and could not be regarded as a constructive loss. Under these circumstances, in law, the lender could still sue the master under his (the lender's) maritime lien upon the ship, and this was still enforceable against the ship even though she was now in the hands of a purchaser for value. There was no loss which would entitle plaintiffs to claim against defendants.

CEBALLOS vs. SCHOONER WARREN ADAMS.

U. S. District Court Southern District of New York.

DAMAGE TO CARGO—PERIL OF THE SEA—STRAINING OF CENTERBOARD TRUNKS—SEAWORTHY VESSEL.—At Matanzas, the schooner Warren Adams was inspected by a competent shipwright and calked wherever the need of calking appeared. She then took on board a cargo of sugar, and on her voyage encountered heavy weather. In the necessary use of the centerboard during such weather, the center-board trunk was strained, causing the vessel to leak. Held, a peril of the sea, and the vessel, being seaworthy at the commencement of the voyage, was not liable to the cargo owner for the damage.

Brown, J. In the case of the E. I. Morrison (153 U. S. 214), there had been no inspection of the fastenings of the plate for eleven years, and the ship was held to have taken "the risk of her inability to prove the safety of the cap and plate."

Here the centerboard trunk, by the straining of which, and by the consequent leak the sugar damage arose, was inspected by a competent shipwright before she left Matanzas, and calked, according to the captain's testimony, wherever the need of calking appeared. On the voyage the schooner met heavy weather, was obliged to tack many times, and could not come about without the use of the centerboard, which was therefore dropped somewhat to enable the ship to tack. In this necessary use of the centerboard in rough weather, the trunk was strained and sprung a leak in the hold just above the bags of sugar; the leak as soon as possible was so far repaired as to enable the pumps to keep the leak under control. The case is, therefore, essentially different from that of the E. I. Morrison, *supra*. Straining in heavy weather and leaks from such straining, have, in the judgments of the sea, been treated as sea perils from time immemorial, where reasonable inspection and provision to make the ship seaworthy are proved, and there are no special circumstances indicating the unsoundness of the ship. Seaworthiness does not mean a warranty against leaks from straining in heavy weather.

In the present case, as in that of The Sintram, 64 Fed. 884, I think that the evidence, in the absence of any countervailing proof, shows a ship which in general was staunch and seaworthy; that as respects the centerboard trough, there was such inspection of it, and such repair of all that seemed needful as to meet the requirement of ordinary and reasonable fitness for the voyage contemplated; and that the straining and consequent leak that arose by the partial and necessary use of the centerboard in the rough weather the vessel met, is not evidence of either negligence in the master, or of unseaworthiness of the vessel, but is to be properly attributed to the excepted sea perils.

The libel must consequently be dismissed with costs.

FROM Point Iroquis, ten miles this side of Sault Ste. Marie, down to Detour, 60 miles below the Soo, and at the entrance to St. Mary's River, the channel is very narrow, and crooked in many places, so that navigation is only possible by a systematic code of land marks, channel stakes, range lights, and beacon lights. It is almost impossible to make this run all the way in the darkness of night, or during a fog. Capt. Robert McLeod reports that while coming through the new Hay Lake Channel, on the up trip, a heavy fog set in and vessels commenced to let go anchor, but on taking a station aloft he was able to keep his steamer under way. He took up his position in the crosstrees 60 feet above the decks and held it for two hours, in order to be able to look over the fog and set his bearings from the different land marks, and then pass the word to the man at the wheel.

A NEW LIFE-SAVING DEVICE.

(ILLUSTRATED.)

The inventor of the life-saving device herewith illustrated is Eugene J. Kreig, of Marquette, Mich., and it has been pronounced by experts as one of the most reliable life preservers ever placed on the market.

The patent belt consists of two circles of rubber, each containing two air chambers and each chamber when inflated holding its supply of air independently of the others. The two air chamber circles are joined together by strong flat rubber tubes of sufficient length to permit the air chambers to pass around the shoulders and waist, being held in place by suspending straps and cross braces. Immediately in front and projecting upwards are two rubber tubes with mouth pieces through which the air is forced into the different chambers. Thus the apparatus may be strapped on ready for use and worn without special inconvenience until needed, when a few strong breaths are all that is necessary to fill all the chambers and render the device buoyant enough to hold up the largest person. While the air may be passed from one chamber to another during inflation, cleverly devised valves prevent its escaping backwards. One of the chambers is sufficient to buoy up a person in the water and any of the chambers may be destroyed without rendering the apparatus ineffective. When not in use and free from air the life preserver can easily be packed in a small grip.

The plans of the inventor allow for two sizes of his improved life preserver, which was patented June 7, 1892, a large and extra heavy size for life-saving stations and boats and a smaller size for private use, travelers, etc. The body is made of thick rubber and the valves and metal fittings of aluminum. The invention is a clever one and doubtless very useful and possesses so many points of excellence over the cork jacket and other life-preserving apparatus now in general use that it would appear only an exhibition of its advantages before experts is necessary to secure its adoption by those whose vocation leads them much upon the waters of lake or sea.

The belt is not an expensive one to manufacture and although patented, the inventor has not yet made arrangements for the manufacture of his excellent device, which, from all accounts of the many trials it has been subjected to seems to meet the requirements in a measure not yet attained by other devices used for similar purposes.

A PATENTED LIFE BELT.

THREE NEW TORPEDO BOATS.

The Navy Department has completed plans for three new torpedo boats, which are designed to be the largest and fleetest of their type yet undertaken in this country. They will combine many of the important features of such boats as the Hornet, but will have an arrangement of engines which shall protect the vessel from being disabled by a shot through from side to side. The designs contemplate vessels of two knots greater speed than the Ericsson, the latest addition to the navy, and fifteen feet longer. Their steaming radius will far surpass that of the Cushing, and the three boats now building at Baltimore, and will be equal to that of the best of the English-built boats.

The act under which the boats are to be constructed provided that each, when completed, was to cost, exclusive of armament, not more than $175,000. As Governmental superintendence, preparations of the designs, and the installation of the ordnance outfit must be included within that limit, the bidding basis will no doubt fall somewhere near $150,000. The dimensions of the boats are: Length on load-water line, 170 feet; extreme beam, 17 feet; mean draught, 5½ feet; displacement, 180 tons; indicated horse power, 3,200, and speed, 26 knots. The horse power of the vessels is enormous considering their size, and far exceeds that of many ocean-going steamers.

All parts of the boat must be of domestic manufacture, and bids will be invited under two classes. The first class will embrace bids upon the department's plans, while the second class will embody boats to be constructed in accordance with the designs of the bidder, the essential requirements of the Government's design being, however, assured. The craft will be built of steel and other metal, or of alloy, whichever the contractor, with the department's approval, may deem most suitable.

Steam at a pressure of 250 pounds to the square inch will be supplied by three water-tube boilers, two of which will be placed in a water-tight compartment forward of the engines, with a common fire room between them, while the other boiler will be placed in a separate water-tight compartment abaft the engine space. The normal coal supply will be twelve tons, with a bunker capacity, however, of sixty tons.

No premiums will be offered for increased speed, but should the speed fall below the required 26 knots, and yet be above 25 knots, the penalty will be at the rate of $10,000 a knot below 26 knots. Should the speed fall below 25 knots the boat may be rejected, or. at the discretion of the Secretary of the Navy, accepted, at a reduced price.

The act providing for the construction of these boats makes them subject to the bids of contractors on the Pacific slope, the Mississippi River, and the Gulf of Mexico only, unless the bids show that they cannot be built in these sections at a fair cost, in which case the Secretary is at liberty either to build them at any one of the navy yards, or ask for bids from any of the well-known firms. All three boats must be completed and delivered to the Government within fifteen months from the date of the contract. The boats will accommodate four commissioned officers, four machinists, and sixteen seamen.

LIST OF MARITIME DISASTERS.

The administration of the Bureau Veritas has just published the list of maritime disasters, reported during the month of April, 1895, concerning all flags. From particulars furnished by Capt. F. D. Herriman, manager of the lake department of the Bureau Veritas, we find the following statistical returns: Sailing vessels reported lost.—8 American, 14 British, 3 Danish, 3 Dutch, 4 French, 9 German, 1 Italian, 15 Norwegian, 2 Russian, 2 Swedish, 1 Turkish, Total, 62.

In this number are included 11 vessels reported missing. Steamers reported lost.—1 American, 4 British, 1 Danish, 1 French, 1 German, 1 Hawaian, 2 Norwegian, 1 Swedish, total, 12.

Causes of losses: Sailing vessels.— Stranding 19, collision 4, fire 3, foundered 1, abandoned 16, condemned 8, missing 11, total 62. Steamers.—Stranding 5, collision 4, fire 1, foundered 1, condemned 1, total 12. Vessels surveyed and classed by Bureau Veritas from April 21 up till May 20, 1895: Sailing vessels 232, steamers 117, total 349.

A COLIMA EPISODE.

As an incident of the recent foundering of the Pacific coast steamer, it is related that the three blasts on the steam whistle of the Colima given by Capt. Taylor just before his vessel foundered, had a singular significance for his grief-stricken wife. To her it is more than a farewell salute to others– it is "a very last good-by" to herself.

Capt. and Mrs. Taylor were an unusually devoted couple. Having no children they lived for each other. The only thing that interfered with their happiness was his going to sea. Like most of the wives of the Pacific Mail Co.'s masters, Mrs. Taylor seldom went down to the dock to see her husband off on a voyage. When the time came for him to leave on his last voyage, Mrs. Taylor had a singular feeling about letting him go. At last, unable to have him take leave of her at their hotel, she said she would go down to the dock. The captain tried to dissuade her, saying it would not be pleasant for them to part before strangers. In spite of his reassurances, she could not bear the idea of having him go. The captain had never seen her exhibit such a dread of their parting and was puzzled at it.

At last he suggested that she should give up going down to the dock and should go out to Point Lobos and wave a farewell to him. He said she could watch for him there and he would watch for her from the vessel's deck. Then to cheer her up he said he would give a parting signal.

"I'll be sure to blow you three whistles, dear," he said as he was kissing her good-by, "and that will be my farewell. The three whistles will be my very last good-by."

Mrs. Taylor went out to Point Lobos as arranged. She saw the Colima steam out the Golden Gate, heard the three good-by whistles, and watched the vessel until it was a mere speck on the horizon. Then she went home with a heavy heart.

When Mrs. Taylor first received news of the wreck of the Colima she was hopeful that the captain had been saved. But directly she read in the paper of the last three whistle signal he had given while standing at his post of duty she broke down.

Later in the day she telephoned to the Pacific Mail office asking if the newspaper accounts of that last signal were true. When told they were she gave up all hope and became utterly prostrated. She takes that last three-blast signal as a message from the captain to herself as his "very last good-by."

THE PROTECTION OF WIRE ROPES.

The lubricant used for a wire rope must penetrate between all the wires covering each with a thin flim. As a preservative, it must prevent rust and be free from acids. As a protection, it should turn water and other liquids, and form more or less of a cushion to prevent abrasion. A lubricant specially made to meet all the trying conditions to which wire ropes are subjected consists of tart summer oil, and mica axle grease, in such proportions as will meet the special conditions under which the ropes are to be used. The tar and oil must be free from acid. This combination thoroughly penetrates between the wires, prevents rust, and fills the cable, so that it has the appearance of a bar of iron. It sheds water successfully and does not strip off. Old cables which have been treated with this, when taken apart, show every wire bright and clean, the heart or hemp core being also in prime condition. Linseed oil, on the contrary, frequently hardens around the core, so that it rots and breaks down, destroying the cushion, which the hemp center ought to provide. As soon as the rope has been well filled with this compound the addition of a very little from time to time keeps it in a good condition, so that it is economical besides. The best manner of applying it is by means of a drip, which pours it on in a fine steam while the rope is in use, care being taken to put it on very slowly.

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CLEVELAND, O., JUNE 20, 1895.

THE report of the Dominion fisheries department for the last year, just issued, places the total value of the product of the fisheries at $20,719,573, an increase of $32,912 over last year. This is the highest mark reached by the fisheries since confederation. The value of the vessels, boats, seines and other material used in the fisheries amount to $9,430,116, the highest ever known. The total number of fishermen is placed at 70,719, an increase of 2,966 over last year.

CHARLES H. KEEP, ESQ., Secretary of the Lake Carriers' Association, has submitted to Major E. H. Ruffner, United States Engineer, at the request of the latter, a report on the estimated decrease in the carrying capacity of the lake fleet under a three, six or nine inch fall in the mean level of the lakes by drainage through the Chicago canal. He figures that a lowering of the lake levels by three inches would diminish the carrying capacity of the lake fleet 1,142,370 tons and reduce its earnings $571,185. A lowering of six inches would cut the capacity 2,284,740 tons and diminish earnings $1,142,370. A lowering of nine inches would affect the capacity to the extent of 3,427,110 tons and wipe out $1,713,555 in earnings. The earnings of lake vessels are estimated at 50 cents per ton of cargo carried over and above cost of loading and unloading.

THE Hydrographic Office, U. S. N., always endeavors, as far as possible, to give credit where credit is due, and in all its publications it cites all the authorities from which information is drawn for compilation and construction. On charts, however, which are made up from many authorities, it is customary to state no more than that the chart was compiled from the latest authorities. This usage has been followed in the new charts of the Great Lakes just issued from the Hydrographic Office, among which are the charts of Lake Superior, Lake Michigan, Lake Huron and Georgian Bay, and Lakes Erie and Ontario. It is stated: First, that they are compiled; second, that they are compiled from the latest information. The Hydrographic Office desires to give the following list of authorities from which the information for the above named charts has been taken. First comes the admiralty charts resulting from the surveys made under direction of the government of the Dominion of Canada, by Commander Boulton, R. N., and in due order the following: Surveys in the Province of Ontario by the Department of Crown Lands, published in 1887; various surveys by the Department of Public Works of Canada; the charts resulting from the survey of the United States waters of the Great Lakes, by the Corps of Engineers, U. S. Army; the Publication of the Light-House Establishments of the United States and Canada; the U. S. Land Office maps of the State of Michigan, published in 1886 and the U. S. Geological Survey maps. The above mentioned charts may be obtained from any of the agents of the Hydrographic Office on the Great Lakes. The U. S. Navy Hydrographic Office seems now to be increasing its work, so as to become the chief source of information from which we may obtain the principal factors in lake marine service.

A QUEER SHIP.

Lying at a wharf in Alexandria, Va., is a very remarkable ship. She is the first of a new type of vessel intended to revolutionize the ocean carrying trade. If the hopes of Mr. Fryer, the designer and builder of the ship are realized, passengers will cross the Atlantic in three-fifths of the time now occupied by the "ocean greyhounds" of commerce.

Mr. Fryer has sought to apply the palace car idea to ocean travel. He has built a ship which while 222 feet long is only 16 feet beam. Her equilibrium is to be maintained by a heavy keel and by the 80,000 pounds of machinery below the water line. The narrow entrance of such a vessel will cut the water like a knife. Resistance will be reduced to a minimum. The heavy compact machinery will furnish ample power for the single screw, and the little vessel will cleave through the water at a rate of speed which will seem incredible at first. All of this, of course, if Mr. Fryer's hopes are realized. The vessel is to have a practical test in the lower Potomac River in a short time. Then the Howard Cassard, as the new ship is called, will be taken to New York. She is expected to reach there in June.

The ship now approaching completion at Alexandria is built to four-tenths the scale of the full-sized ship. The transatlantic liner of this model is 555 feet long, and 40 feet beam.

Of course, with such a vessel as the foregoing, the carrying of freight would be out of the question. There is a main deck, a cabin deck and the hold. And the hold is quite filled with machinery. The upper deck is only a promenade, and the cabin deck is so narrow that there is not space between the sides of the ship for even so luxurious a cabin as some private yachts contain. Such a thing as a general cabin would be out of the question. This narrow space has been utilized in part by the construction of single staterooms on each side, a narrow aisle running down the middle of the ship. The remaining space is to be divided up like a sleeping car. Adjustable berths, upper and lower, will be concealed during the day, and each "section" will be supplied with handsomely upholstered seats. In these sections meals will be served from a gallery in the hold, on small tables, just as they are served in a buffet car. There will be a toilet room for men at one end of the ship, and a toilet room for women at the other. When night comes the seats in the sections will be transformed into beds, the upper berths will be let down if they are needed, and each section will be screened from the aisles by portieres. In running to tropical countries the new vessels will carry a certain quantity of fine fruit, and two of the section spaces will be given up to refrigerators.

This is the old project that excited the shipping world several years ago, when the vessel was said to be a complete failure and we must now wait to learn how the latest attempt will come out.

THE MATE IN FAULT.

The English Board of Trade after examining thoroughly all the reports regarding the sinking of the North German Lloyd steamship Elbe, early during the morning of January 31, which resulted in the loss of about 370 lives, has ruled that the mate of the Craithie, the British steamer which ran into and sunk the German steamship, was responsible for the disaster. Consequently, the mate's certificate was duly suspended.

The court added that the collision might have been avoided and the danger passed if the Elbe had stopped immediately after the officer of the watch sighted the danger.

Now, we wonder why the United States can not introduce a system whereby some responsibility can be placed in the event of collisions. All collision cases are easily demonstrable and faults located.

The findings of the English Board of Trade include the following details: It has been made clear that the telegraphic communication with the engine room was not in working order at the time of the collision, and it has also been made plain that the watch on deck was inadequate to the requirements of safe navigation. It was further found that there were not a sufficient number of men on deck. The vessels were what are designated as "crossing ships" within the meaning of article 16 of the regulations for preventing collisions at sea, but the Elbe failed to comply with article 18 of these regulations, inasmuch as she did not slacken her speed when the danger of collision became apparent.

Nevertheless a proper lookout was not kept on board the Craithie. The Elbe kept a proper lookout, and the officer in charge of the Elbe acted properly in keeping his course at full speed until there was danger of collision, but as soon as that was apparent he should have blown his whistle and stopped the engines. The Craithie, the Board finds, was primarily to blame in not keeping a proper lookout, but the catastrophe might have been averted if the officer on duty on the Elbe had stopped his vessel as soon as the danger of collision became imminent. The Craithie was not navigated with seamanlike care, but the Board finds that her master was not to blame, as he was justified under the circumstances shown in being in the cabin instead of on deck. The Board finds that Craig, the mate of the Craithie, was alone at fault, and his commission is, accordingly, cancelled.

ABOUT eighty-four lifts were made with the hydraulic jacks before the steel steamer Alva was floated off North Manitou Island, where she had stranded recently during a fog. This process of lifting a stranded boat a few inches and then moving her as far as the lift will permit by pulling with a tug—the operation being repeated over and over again—is tedious and difficult, but in the case of the Alva the wreckers were successful after about forty-eight hours of favorable weather The increased weight of water, which could not be pumped from the damaged compartments of the boat, made the work more difficult than it would have been if the water bottom could have been entirely freed of its contents. The wrecking steamer Favorite, which was engaged on this job, is equipped with one of the most complete outfits on the lakes. She has ten hydraulic jacks of about 80 tons lifting capacity each, and it is understood that her equipment in this line is to be increased for future emergencies.

THE past week has developed orders for the construction of three large steel steamers, F. W. Wheeler & Co., of West Bay City, being credited with two, and the Globe Iron Works Co., Cleveland, with one. The Globe contract is to replace the lost steamer Norman, of the Menominee fleet, and according to the views held for several years past by Capt. George P. McKay, manager of the line, she is to be one of the largest carriers afloat. Four hundred feet keel and 4,000 tons capacity will be about the particulars of the new ore carrier. The Wheeler contracts are to be of similar dimensions, one of which is now reported as placed by D. C. Whitney, of Detroit, and the other one on builders' account, though the latter item requires confirmation. With the continual building of these immense steel freight carriers the query will have to be met, "what to do with the older and smaller tonnage." There will be no special trade for them on the lakes, nor can large numbers reach the coast through the present canals, while the property is too valuable to break up or totally condemn. The future outlook for owners of even medium sized vessels is by no means flattering, as they can't be run at a loss, and competition with the larger craft will soon be out of the question.

THE TWENTY-FOOT CHANNEL.

Col. O. M. Poe in his report for May says that the work on the ship canal connecting the waters of the Great Lakes has progressed as follows:

Section 2 (channel in Little Mud Lake, St. Mary's River, between the lower end of "Dark Hole" and end of Sugar Island,) excavated 23,367 cubic yards of material scow measure.

Section 3 (channel through a shoal in Mud Lake, one and a half miles below Sailors' Encampment Island,) excavated 13,574 cubic yards of material; 610 holes were drilled and 2,369 pounds of explosives used.

Section 5 (channel at foot of Lake Huron). Contractors resumed work on May 2, and removed 61.680 cubic yards of clay.

Section 7 (channel through Grosse Island flats, Lake St. Clair,) continued work with from five to seven dredges and removed 299,517 cubic yards of clay.

Section 8 (channel through bar at the mouth of Detroit river.) Contractors continued work with from two to four dredges and removed 62,200 cubic yards of heavy clay. Also commenced work with one dredge on the rock shoal and removed 666 cubic yards of loose rock from the east side of Hackett range line. Open waters are as in St. Mary's River, necessarily omitted by the ice survey, have been sounded by the cutter crew; also

Vidal shoal between the canal and Big Point was sounded, but not quite completed.

Work on the St. Mary's new improvement was continued. Water guage markings were continued with the following result: Above locks 601,84 feet above sea level; below locks 582.01 feet; mean difference 19.83 feet.

St. Mary's Falls Canal, Michigan, was opened to navigation April 25, since which time to June 2, 539 boats have passed through the lock. Owing to the unusually large number of boats passed, six men of the labor party were employed in assisting the lock force. Depth of water over the platforms averaged 13.9 feet. The canal postoffice handled 14,177 letters, 376 postal cards, 868 newspapers and 74 parcels. During the month 524 more vessels passed than in May, 1894. The increase in freight tonnage was 255,340 tons and in passengers 277.

The improvement in Hay Lake channel has steadily progressed except in the first section, where little was done on account of the dredge breaking down. At St. Clair flats four tons of fertilizer were put on the dikes. In the Detroit River one dredge has been clearing up the area from which the boulders were removed last fall. An area 800 feet long and 300 feet wide west of Grosse Isle ranges was dredged. Another dredge commenced work May 9 at a point 1,100 feet below the upper end of the obstruction, working down stream over an area 800 feet long and 300 feet wide to a clear depth of eighteen feet.

LAKE FREIGHT SITUATION.

After being held down to 50 cents for several days the Escanaba ore rate, went back on Wednesday to 55 cents with Marquette firm at 75 cents and the head of the lakes at 85 cents.

The Buffalo coal market is firm with not too much tonnage at hand; present quotations are 50 cents Chicago, Racine or Sheboygan, 45 cents Milwaukee. Toledo rate declined to 25 cents a drop of 5 cents from the former rates. Ohio coal freights have been more than quiet all week, although there has been inquiries for Lake Michigan, yet, there is little coal coming in nor are very heavy shipments expected for some days. During the week 50 cents was paid from Erie to Milwaukee, Ohio ports 40 to 45 cents and 30 cents to the head of the lakes, but coal is scarce on account of a large number of cars being tied up with ore at furnaces and again the mines are not getting out their usual quantity of coal at this time of the year.

The Chicago grain trade is at a low rate, and there has not been enough grain handled during the week to keep the line boats loaded even at a 1 cent rate on all kinds of grain.

SANDY HOOK SEARCH LIGHT.

Experiments are to continue with the monster search light which was erected some time ago at the army proving ground at Sandy Hook, which was on the roof of the Manufactures building at the World's fair, and was purchased from its German maker by the War Department. A recent report on the operations with this search light shows that it will not be as valuable an auxiliary in coast defense as was originally supposed. The lamp is mounted on an iron tower which has a granite base. It is found that a small boat can easily avoid the intense shaft of light with a little dexterous and careful navigation. The boats which have been used are small, fleet and easily changeable, and moreover are painted so as to be undistinguishable.

One difficulty in making observations is that it is almost impossible to distinguish objects while standing near the light. This has resulted in the provision of a mechanism which allows the light to be changed in its vertical and horizontal motions from a distance by either hand or electric power. A metalic shutter has been added to the light, so that it may be used for signaling purposes after the manner of the much weaker oil lanterns which are used in the army signal service. The opening and closing of the shutters, which disclose or hide the light, can be made to conform to the Morse code of dots and dashes. Of course, a cipher code can be easily utilized in transmitting messages to a friendly fleet at a distance.

The Sandy Hook search light plant consists of one search light complete, with a parabolic glass mirror 60 inches in diameter and furnished with a horizontal self-focusing arc lamp. One steam engine of 20 horse-power, arranged for direct coupling with a dynamo of 160 amperes and 70 volts, the whole being of sufficient capacity to produce an intensity of light equal to about 200,000,000 candle power. Special measuring and controlling devices, such as voltmeter, and amperemeter, safety fuses, rheostat with switch board, etc., are provided as part of the plant. The steam engine and dynamo are located near the boiler pertaining to the machine shop.

VISIBLE GRAIN SUPPLY.

The stocks of grain in Chicago elevators last Saturday evening were 17,585,000 bushels of wheat, 5,502,000 bushels of corn, 2,146,000 bushels of oats, and 37,000 bushels of rye. Total, 25,270,000 bushels of all kinds of grain, against 22,421,000 bushels a year ago. For the same date the Secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 47,717,000 bushels of wheat, 10,785,000 bushels of corn, 8,686,000 bushels of oats. 117,000 bushels of rye, and 118,000 bushels of barley. These figures are smaller than the corresponding ones a week ago by 2,022,000 in wheat and 707,000 in corn. The visible supply of wheat for the corresponding week a year ago decreased 1,106,000 bushels.

CASUALTIES OF THE WEEK.

The seven days that have elapsed since the last issue of the RECORD appeared, have been one of the luckiest weeks for the lake fleet that have passed this season. There were, however, two very narrow escapes from serious disaster by collision. The schooner H. Taber arrived at Cheboygan, Mich., Saturday evening minus her jib-boom and cat-head, lost in a collision with an unknown steamer the night previous, in the Straits. This is supposed to be the E. C. Pope, which reported a collision in which she escaped damage.

On Thursday night the Bulgaria and Vega had such a close shave on Lake Superior that the Vega sustained some damage. Both the above accidents were attributed to fog.

Capt. James Davidson, the millionaire Bay City ship builder, was in personal command of the steamer Robert Holland, towing the Lizzie Law, when he met the steam barge Salina, which gave the first signal. Capt. Davidson was afraid of going aground, and blew a cross whistle. The Salina and Law collided, and the former now rests on the bottom of Saginaw River, where the troubled occurred. There is quite a dispute over damages.

The schooner Porter, in tow of the steamer St. Paul, struck on Vienna shoal on Wednesday, and was found to be leaking considerably when she was released, but her own pumps kept her free and she proceeded on in tow.

THE NEW BATTLESHIPS.

The contention of the naval ordnance officers that the armor belt on the new battleships should be raised one foot higher than is designed, is warmly combated by Chief Constructor Hichborn. Commodore Sampson, chief of ordnance, declared that the belt as planned is but three feet above and four feet six inches below the water, with only 500 tons of coal on board, and when a supply of 1,300 tons is in the ship the belt is but eighteen inches above water and six feet under. If the supply of coal is increased to 1,600 tons, as is stated may be done, the belt will be less than one foot out of water. It is nearly always the case that the draft of a ship, especially a large one, exceeds the estimated draft. The improvements, added fittings, etc., not unfrequently tend to such a result. When a ship is in action and fighting, one side the ship has an inclination to the fighting side, which further submerges the armor on that side, which is also the side attacked. While the protection to be furnished by the belt is for an average draft, it should not be overlooked that when a ship goes into action with her belt armor almost submerged, she loses the protection which it ought to furnish, and there is no remedy for the difficulty, whereas, if she is forced to fight with more of her belt exposed than the commanding officer deems prudent, he has the effeetive remedy of admitting water to the double bottom.

If these vessels were put to sea in time of war it would be with pound of coal they could carry, and if the supply became reduced to 500 tons, prudence would require them to renew their supply. For all these reasons it is believed that it would be wasteful of protection to place the armor belt so low.

ACTIVELY BENEVOLENT.

Capt. Edward Evans, of the steamer M. C. Neff, with the assistance of Capt. James Hogan and John F. Hodell, all old friends of the late Capt. Edward Stines, who with his son lost their lives on the steamer Chicora, succeeded in obtaining $490 on behalf of the deceased captain's widow, who was left in poor circumstances after the loss of her husband and son. Following is the list of donations:

O. S. Richardson Fueling Co.	$50.00	Geo. Warrington	5.00
Independent Tug Line.	25.00	A. C. Johnson	5.00
Goodrich Transportation Co.	25.00	Peter Ott	5.00
Becker & Jackson	25.00	L. Windmuller	5.00
Lake Mich. & Lake Superior Trans. Co.	25.00	E. R. Coughlan	5.00
Independent Fuel Co.	25.00	D. R. Cameron	5.00
New Kentucky Coal Co.	25.00	Donaldson Bros.	5.00
Miller Bros. Dry Dock Co.	25.00	John Mohr & Sons	5.00
Northern Michigan Trans. Co.	25.00	G. Whistlar	5.00
Martin Ryerson	25.00	Tobin & Hamler	5.00
T. B. Banner	25.00	J. B. Bates & Co.	5.00
W. P. Rend & Co.	10.00	H. Channon Co	5.00
Geo. B. Carpenter	10.00	Dunham Towing & Wrecking Co.	5.00
Chas. F. Elmes	10.00	James A. Reeves	5.00
Robt. Tarrant	10.00	James Rogers	5.00
Robt. E. Hills.	15.00	Capt. James Hogan	5.00
John Ford	10.00	Capt. Wm. Evans	5.00
Capt. Wm. Hudson	10.00	Capt. Edward Evans.	5.00
O. N. Schutt	5.00	John F. Hodell	5.00
		Capt. John Roberts	5.00
		Martin McNulty	2.00
		Capt. Wm. Chamberlin	1.00
		Wm. Musgrave	2.00
		A. Westendorf	5.00

FLOTSAM, JETSAM AND LAGAN.

The Charles Wall will tow behind the Germania this season.

The schooner Augustus is getting repairs at Benton Harbor.

The new steamer Islander is almost completed at St. Joseph, Mich.

Gow & Campbell, of Muskegon, have put a force pump on their tug Boss.

The dredge Hamlin, from Toronto, is deepening the water over the sand bar at Port Colborne to 17 feet.

Steambarges entering Toledo are requested not to carry foresail, as vessels astern cannot see the range lights.

John H. and Guy Gillette of Marquette, were arrested by U. S. authorities on charge of dumping ashes in the harbor there.

Capt. Long of the City of Rome, advises deep draft boats to keep well to the Canadian side at the head of the St. Clair River.

Several big tugs engaged in the trans-Lake Huron logging trade have become excellent customers for the Alpena fuel docks.

The Canadian steamers Edna Brydges and Algoma collided Wednesday, the 12th at Rat Portage. The latter was badly damaged.

There is now 18 feet of water between the harbor piers at Sheboygan, Wis., but in the river channel the depth does not exceed 16 feet.

The schooner J. B. Kitchen has completed repairs at Port Huron, and has taken on at Alpena the same cargo of plaster with which she got into trouble. She is now carrying it to Chicago.

Capt. Kirtland, who is one of the oldest and best known of the Lake Michigan masters, has invented a patent sounding apparatus that is said to be perfect. It was tried on a fast boat recently and no trouble was found in obtaining a true depth of ten fathoms while the boat was moving at a 16-mile gait.

Referring to the location opposite Sweet's mill on the Sault river, where the consorts of the steamer Shenandoah grounded. T. R. Harvey says it may be well to note that there is a mud shoal at this point which has already cost the vessel interests $100,000. There is no red stake at this point, and the black stake is shifted nearly 6,000 feet out of position, down the channel.

The Tamarack and Osceola mining companies have definitely announced their intention of building new coal and merchandise docks at Dollar Bay, cost $60,000. The new dock will entail a longer rail haul to the mines, but will save charges of 10 to 50 cents a ton now made by the Calumet & Mt. Hecla Co., through the Torch Lake Canal on all cargoes going on Lake Linden.

Nine thousand persons contributed $2,250 to the Pilot's Benevolent Association and the Marine charities of New York by visiting the new American Liner St. Louis at her pier at the foot of Fulton street, in New York.

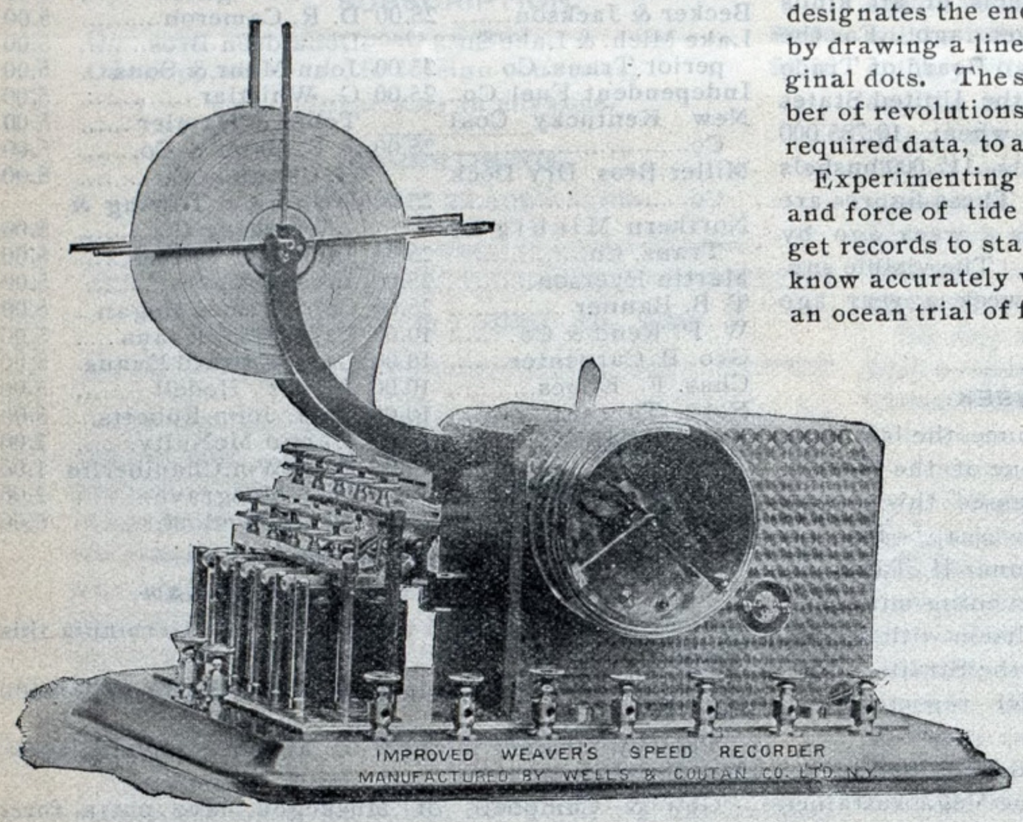
WEAVER SPEED RECORDER.

(ILLUSTRATED.)

The Weaver Speed Recorder was especially designed by W. D. Weaver, Esq., formerly of the Engineer Corps U. S. Navy, to carry out a method for trial-speeds advocated by engineer-in-chief Melville, and was successfully applied on the trial of the U. S. S. "Bancroft."

What exactness is desirable in trial-speeds may be judged from the facts that premiums amounting to over $30.00 per foot or $1,100.00 per second have been paid by the navy department.

This instrument makes a permanent and accurate record of each revolution of the screw; of each second



of time; and of starting and leaving the range. This record is made on a paper tape, on which the central line of dots represent the seconds; the marginal dots, the entry and leaving the range; and in a twin-screw vessel, the intermediate ones would be the revolutions of the port and starboard screws. There is a clock mechanism inside the case, by means of which the paper tape is passed over the pens which make a mark at each electrical contact. The clock mechanism has a Geneva stop so that the speed is as regular as possible. There is also a government attachment, by which the tape can be regulated to move at the rate of a half-inch per second; inch per second; or inch and a half per second. The tape moves freely over the six pens, which are actuated by five magnets; to one of the magnets is led the interrupted current of the chronometer; to three others the currents are established by contacts on the port, midship, and starboard shafts respectively; and through the fifth a momentary current is passed, by the observers, at the instant of reaching and leaving the range. To the armature of the latter magnet is connected two pens, which mark on the two margins of the tape.

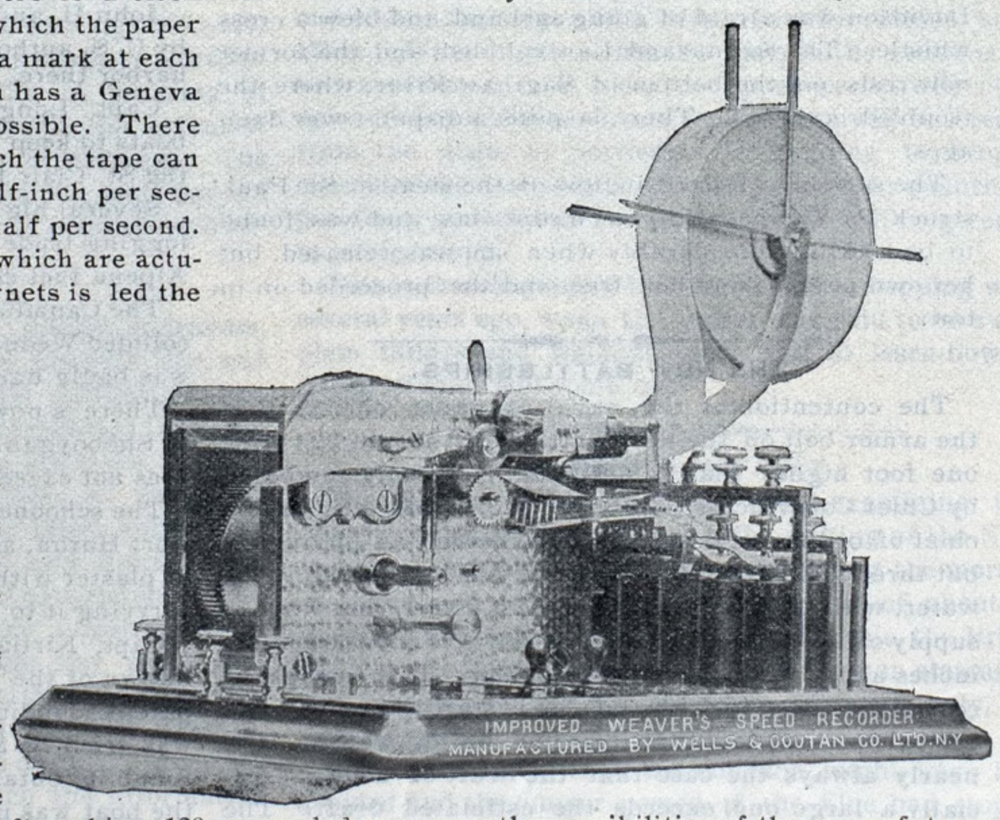
The instrument will run out 125 feet of tape with very little variation of speed. This with the inch per second governor corresponds to the time of about 25 minutes. The tape may be measured to give hundredths of an inch, and with the shaft making 120 revolutions per minute, 50ths of the revolution. An essential feature is the "piano action," of the pens; through this, the time of contact of the pen is infinitesimal, thereby avoiding friction against the tape at a critical moment. A range observer, for example, can keep the key depressed after passing the range, but the pen will drop free from the paper, after instantaneously having made its mark.

Before a trial trip is made, the instrument is put in a convenient part of the vessel, and the magnets connected respectively, one with an electric break circuit chronometer with a special seconds break on.

The relay between the chronometer and recorder is used so that a small current may be used in the chronometer, and so that the recorder magnet will have a "make circuit." Another magnet actuating the two marginal pens is connected with the range contact makers. These makers are held by the observers, who press one button which rings a bell just before they reach the range; and press another button the instant they come on the range. There is an observer in the bow and another at the stern of the vessel. The other magnets are connected with the shafts of the vessel.

The instrument is adapted for a single, twin or triple screw steamer. When the observer rings the bell, the instrument is started, the tape moving freely over the pens, and each second beat of the chronometer is marked on the tape, and also each revolution of the shaft. On reaching the range, the observer makes a contact with the marginal pens which designate the beginning of the range; he again makes a contact which designates the end of the range. A datum line is made by drawing a line across the tape between the two marginal dots. The seconds are then counted, and the number of revolutions counted for each shaft which gives the required data, to ascertain just what the vessel has done.

Experimenting at different speeds where the distance and force of tide are known, enables the engineers to get records to standardize the screw by which they can know accurately what speed a vessel has made during an ocean trial of four hours when these instruments are used. They can also be used in launching vessels and on locomotives. They are made by the Wells & Coutan Co., Ltd., New York.



RAILROAD CAR FERRIES.

It is reported that the Chicago, Milwaukee and St. Paul Co. are about to embark on a steam car ferry project. They propose, it is said, to extend their Lake Superior division so as to form a junction with the Ahnapee and Western railway, which terminates at Sturgeon Bay, by forming a steam ferry connection on the east shore with a trunk line to the seaboard. The Murril, Antigo and Eastern railway and the Wisconsin and Michigan line are also interested in the scheme. The Wisconsin Central railway has completed the purchase of land at Manitowoc for a lake terminus at that point, and another car ferry line to an east shore port is also regarded as among the possibilities of the near future. Plans have been recently got out for such a line of boats and they are to be ice crushers, so that a winter service can be maintained.

THE MARINE POSTOFFICE AT DETROIT.

On Wednesday, June 19, 1895, the United States marine postoffice was opened at Detroit by order of the postmaster-general, and began the delivery of mail, including registered matter, to all boats passing Detroit.

The success of the marine service will, in a large measure, depend on the co-operation of the vessel interests, and, as this service has been established almost solely for the benefit of those interests, their hearty co-operation is confidently relied upon. With their support it is anticipated that the benefits that will accrue to the lake marine interests from a mail service which will be prompt, certain and reliable, will quickly become manifest and will be immediately taken advantage of by all concerned in lake navigation.

It will be necessary for the vessels desiring to receive or deliver United States mail to enter the American channel, but only at the point of delivery.

The marine postoffice station will be located near the ferry landing, between Woodward avenue and Bates street, and deliveries will be made as nearly opposite that point as possible by a launch and small boats; the service being a continuous one, night and day.

The delivery of telegrams through the mails may be had by attaching a two-cent stamp to the telegram, and for immediate delivery, the addition of a special delivery stamp.

Mail for delivery by the marine postoffice should be directed to the "Marine Postoffice, Detroit, Mich," and deliveries will be made throughout the entire period of navigation. During the close of navigation the station will be kept open for the accommodation of seamen residing at Detroit.

The postmaster at Detroit calls the attention of masters and officers of boats to the following code of signals and the masters are requested to have the code posted in a conspicuous place upon their boats.

Signals to passing boats from U. S. mail boats for delivery of mail: Blasts—One long, one short, one long.

Signal for steam vessels wanting mail boats to call for mail: Blasts—One long, one short, one long.

Signal for sailing vessels requiring mail boat: White flag by day, flashing bright light at night.

Signal from mail boat to large boats to check down: Three blasts of mocking bird whistle.

Signal from rowboat belonging to mailboat when approaching vessels for delivery of mail: White flag in daytime, swinging bright light at night.

AMPLITUDES.

The following approximate amplitudes of the sun's rising will be given each week in this column during the season of navigation. A second bearing of the sun may be taken at sunset by reversing the bearings to read west instead of east, as for example, N. E. by E. for a sunrise bearing would read N. W. by W. for a sunset, or E. 30° N. to W. 30° N.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Sunrise.	Bearing (degrees).	Bearing (points).
June 21	E. 32° N.	NE. by E. ⅛ E.
June 28	E. 32° N.	NE. by E. ⅛ E.

LAKE ONTARIO, S. END HURON AND CENTER LAKE MICHIGAN, LAT. 44° N.

Sunrise.	Bearing (degrees).	Bearing (points).
June 21	E. 33° N.	NE. by E. ⅛ E.
June 28	E. 33° N.	NE. by E. ⅛ E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Sunrise.	Bearing (degrees).	Bearing (points).
June 21	E. 34° N.	NE. by E.
June 28	E. 34° N.	NE. by E.

LAKE SUPERIOR, LAT. 48° N.

Sunrise.	Bearing (degrees).	Bearing (points).
June 21	E. 36° N.	NE. ⅞ E.
June 28	E. 36° N.	NE. ⅞ E.

With a compass correct magnetic, the difference between the observed and true bearing will be the variation for the locality. If there is any deviation on the course the vessel is heading at the time of taking the bearing, the result after the variation is applied will be the amount of deviation on that course.

NOTES.

THE battleship Iowa, now building at Cramps, is to be fitted as a flagship.

JAPAN wants more war ships and will probably build some of them in this country.

ALL the state-rooms of the leading trans-atlantic steamships have been engaged for several weeks ahead.

THE American Line steamer S. Louis, Capt. Randle, from New York for Southampton, made the trip in seven days and two hours.

THE Navy Department is considering a plan for removing to Philadelphia the old war monitors, which are now lying in the James River, below Richmond, Va.

THE Acting Secretary of the Navy has allotted among the State Naval Militia Battalions the $25,000 appropriated by congress for their aid. Pennsylvania gets $1,518.18.

THE ship-building output of Scotland for April was 28,746 tons, and orders were booked for close on to 40,000 tons. If the May record works out similarly, a fairly busy summer will be assured.

WILLIAM L. BROWN, President.
WALTER F. COBB, Vice President and Treasurer.
W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

Chicago Ship Building Co.

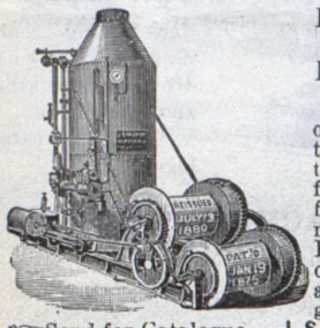
STEEL SHIPBUILDERS and DRY DOCK PROPRIETORS,

DRY DOCK AND YARDS: 101st Street and Calumet River.

LONG DISTANCE TELEPHONES: SHIP YARD & DRY DOCK OFFICE, "SOUTH CHICAGO 40." CHICAGO OFFICE, 1013 ROOKERY, "MAIN 3447."

Station S, CHICAGO, ILL.

Hoisting, Mining, Bridge Erecting,



Dock Build'g, Pile Driving, Coal Hoisting and Quarry Engines

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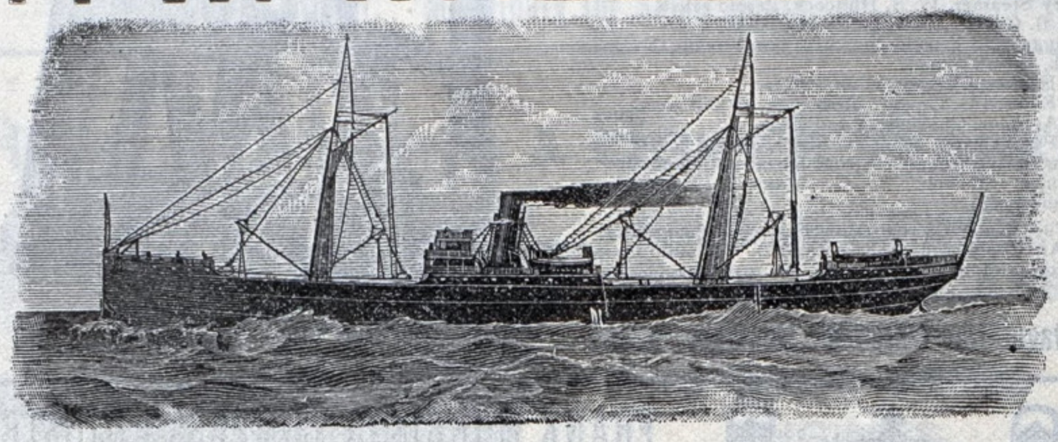

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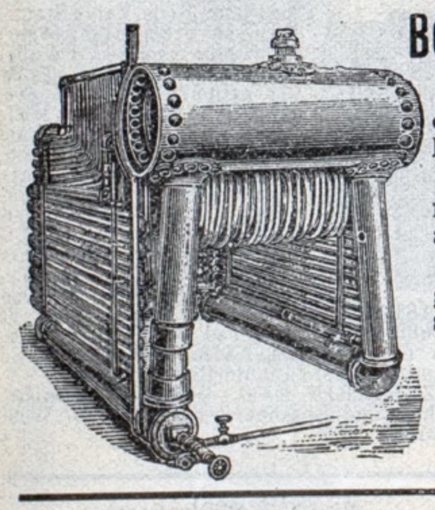

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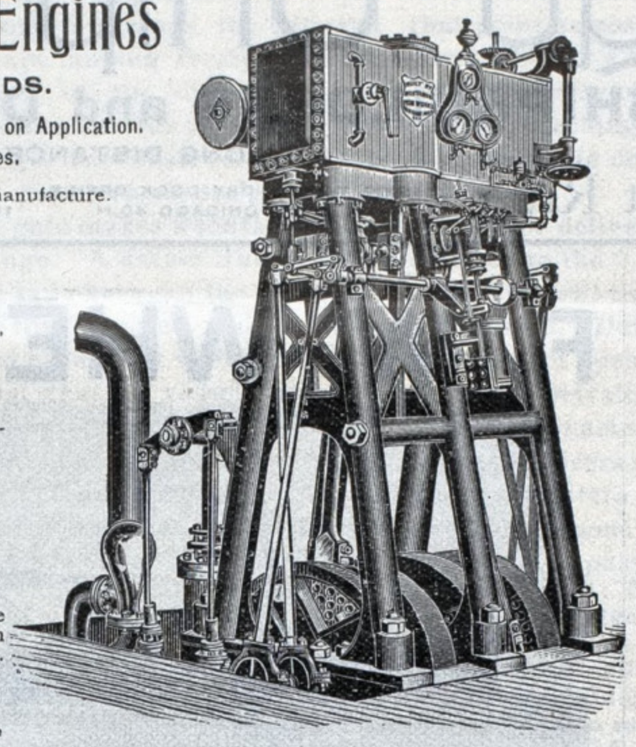

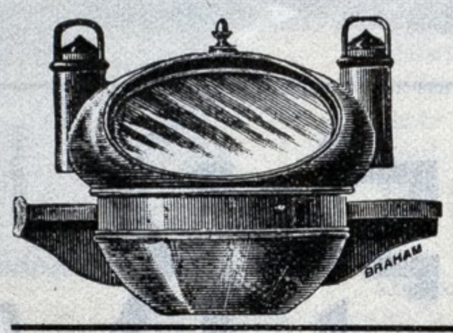

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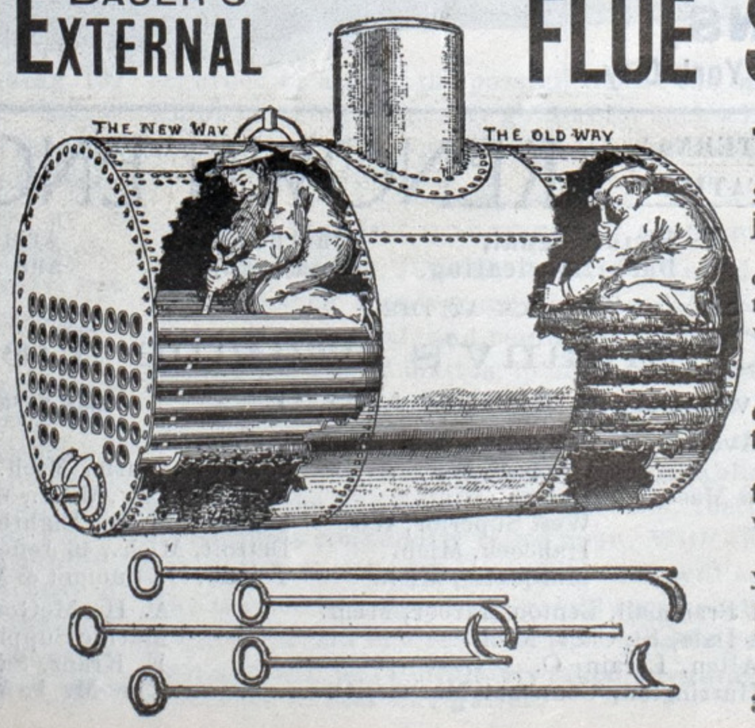

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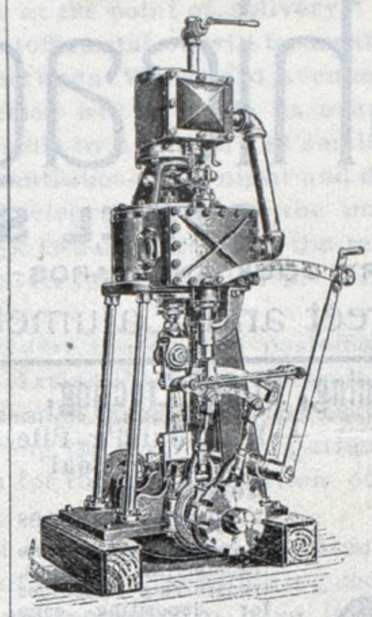

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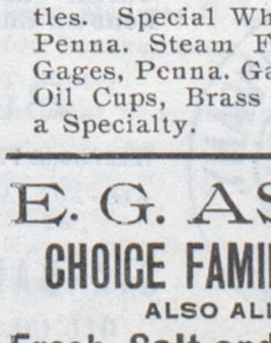

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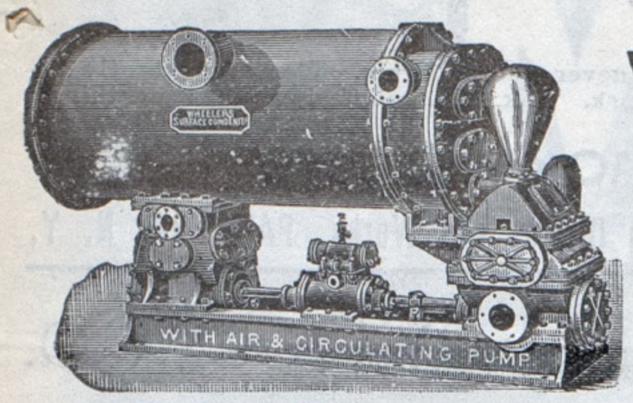

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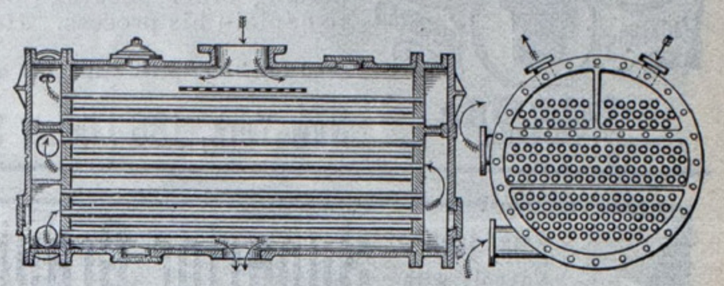

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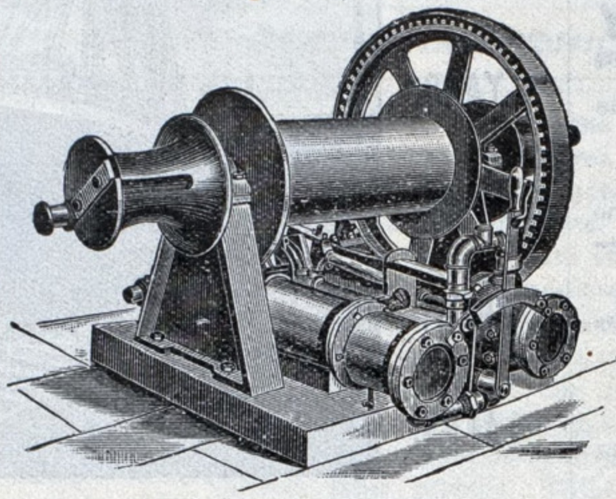

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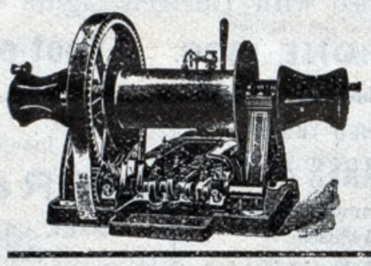

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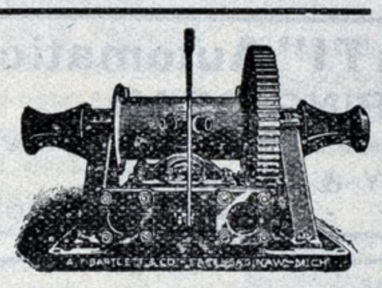

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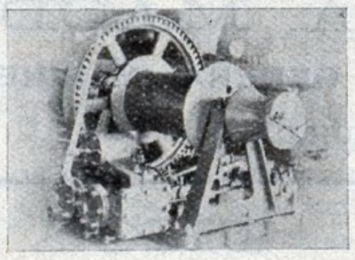

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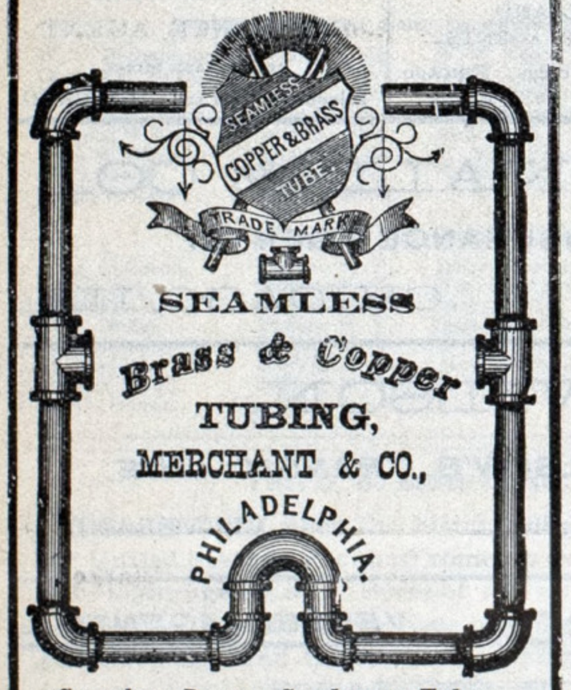

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PROPOSALS.

TREASURY DEPARTMENT. Washington, D. C., June 6, 1895. The time named in Department advertisements of May 27, 1895, for receiving proposals for the construction of two steam propellers for the United States Revenue Cutter Service, for the Great Lakes and the New England coast, is hereby extended, and bids for the same will be received at this Department until 2 o'clock p.m., Wednesday, June 26, 1895. S. WIKE, Acting Secretary.

TO BUILDERS. Office of Light-House Engineer, Eleventh District, Detroit, Mich., May 31, 1895. Proposals will be received at this office until 3 P. M., of Wednesday, the 26th day of June, 1895, for furnishing the materials and labor of all kinds necessary for the construction, erection and delivery of the Round Island Light Station, Straits of Mackinac, Michigan. Plans, specifications, forms of proposal, and other information may be obtained on application to this office. The right is reserved to reject any or all bids, and to waive any defects. M. B. ADAMS, Major, Corps of Engineers, U. S. A., Light-House Engineer.

TO IRON MANUFACTURERS. Office of U. S. Light-House Engineer, Eleventh District, Detroit, Mich., May 31, 1895. Sealed proposals will be received at this office until 3 o'clock P. M. of Wednesday, the 26th day of June, 1895, for furnishing the materials and labor of all kinds necessary for the completion and delivery of the metal work for the Round Island Light Station, Straits of Mackinac, Michigan. Plans, specifications, forms of proposal and other information may be obtained on application to this office. The right is reserved to reject any or all bids, and to waive any defects. M. B. ADAMS, Major, Corps of Engineers, U. S. A., Light-House Engineer.

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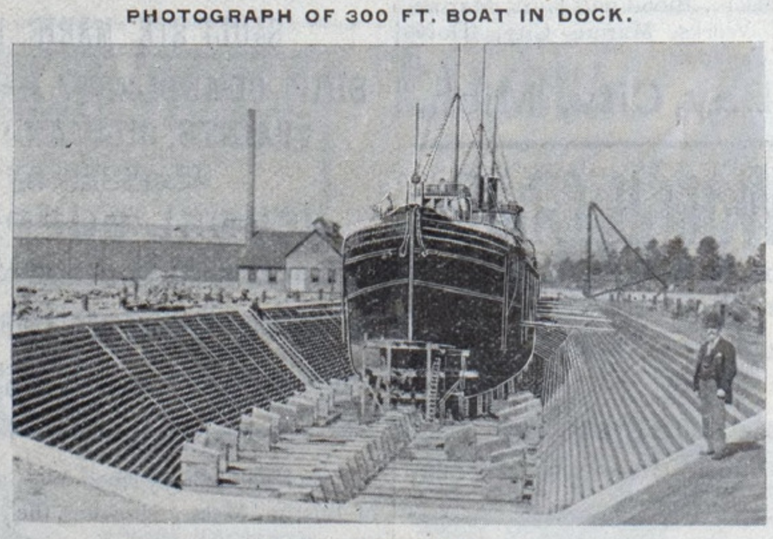

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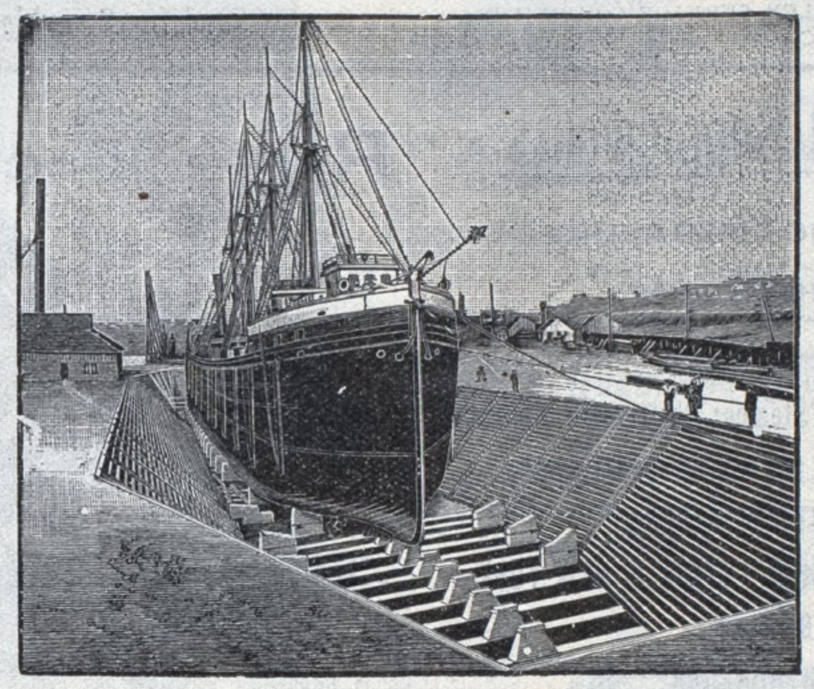

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